

## **Annual Report- Occupational Safety And Health Surveillance (July 1, 2011- June 30, 2012)**

**State:** Kentucky

**Principal Investigator:** Terry Bunn

**Program Type:** Fundamental- Kentucky Occupational Safety and Health Surveillance (KOSHS) program

### **SIGNIFICANT OUTPUTS:**

#### **A. Reports**

- a. Kentucky Occupational Safety and Health Surveillance Program- Annual Report, 2012.

#### **B. Presentations**

1. Developing a Priority Focus Area Within Your Occupational Safety and Health Surveillance Program. Presented as a SouthON webinar. May 30, 2012.
2. Kentucky Occupational Safety and Health Surveillance Program. Presented at the Preventive Medicine and Environmental Health Didactics Session, University of Kentucky College of Public Health, Lexington, KY. May 15, 2012.
3. Surveillance of Drug Poisonings in Kentucky Using Multiple Data Sources. Presented at the Safe States meeting. Atlanta, GA. May 2, 2012.
4. Occupational Motor Vehicle Safety: Southeastern States Perspective, Presented at the SouthON meeting, Orlando, FL. December 5, 2011.
5. Small Business Outreach. Presented at the Annual FACE meeting, Boston, MA. October 14, 2011.
6. OSHA-State-Based Occupational Health Surveillance Meeting Follow-Up. Presented at the Annual FACE meeting. Boston, MA. October 13, 2011.
7. Areas with Elevated Risk for At-Fault Commercial Truck Collisions at Night in Kentucky. Presented at the APHA meeting. Washington, DC. October 31, 2011.
8. Identification of Risk Factors for and Outcomes of Motor Vehicle Collision Fires. Presented at the APHA meeting, Washington, DC. November 1, 2011.
9. Cluster Analysis of Unintentional Workplace Carbon Monoxide Exposures in the United States from 2000 to 2009. Presented at the NOIRS meeting, Morgantown, WV, October 18, 2011.
10. Motor Vehicle Collision Injuries in Semi Truck Drivers vs. Passengers in the Sleeper Berth. Presented at the NOIRS meeting, Morgantown, WV. October 18, 2011.

#### **C. Publications (Peer-reviewed and Non-peer-reviewed)**

1. Slavova, S, Bunn, TL, Singleton, M, Bush, H, Livingston, S. 2012. Emergency Department Visits and Hospitalizations with Concussion Diagnoses. J KY Med Assoc 110:191-198.
2. Bunn TL, Slavova S, Tang M. 2011. Injuries Among Solid Waste Collectors in the Private vs. Public Sector. Waste Manage Res 29(10):1043-52.
3. S. Slavova, J.F. Costich, Kentucky Trauma Registry Report 2010, Kentucky Injury Prevention and Research Center, November 2011.

#### **D. Partnerships**

Transportation sector The KOSHS program commented on NHTSA proposed rulemaking #NHTSA-2012-0065 regarding mandated electronic stability control systems for heavy vehicles. The comment is posted at <http://www.regulations.gov/#!documentDetail;D=NHTSA-2012-0065-0007>

KIPRC Partnerships An online web-based injury prevention and control course was completed in June 2012. The introductory injury prevention long-distance learning course is targeted to public health professionals within local health departments. With decreased funding for in-person injury prevention training over the last several years, local health departments have requested this course from KIPRC to train new health department personnel in injury prevention. The title of the course is "Concepts of Injury Prevention" and examines the epidemiology of general and work-related injuries and costs, injury classifications, injury data sources, the Haddon Matrix, unintentional injury prevention, violence prevention, social disparities, and evidence-based interventions. Upon completion of this course, the learner will have a thorough understanding of the emotional and economic costs of injury, the types of injuries occurring at home, at work, and at play, and the development and implementation of injury interventions. CEUs are planned to be offered. The course promotes active learning through the use of multimedia and user feedback. The multimedia includes video, audio, animation, graphics and text, and is presented in an Adobe Flash format. The Adobe Flash files and associated content are delivered on a streaming multimedia server. Successful completion of the course will generate a certificate in PDF format which may be printed at the

discretion of the user. Data for this course is derived from many sources, including the Centers for Disease Control and Prevention, the Bureau of Labor Statistics, The American Association of Poison Control Centers, the National Fire Protection Association, and the Kentucky Injury Prevention and Research Center. The estimated time of completion for the course is two hours. Users may stop during the course and return at their leisure. There will be a mechanism on the web for participant feedback. Participants will also have an online submission form in case they need technical support. The online course will be available 24/7.

SouthON KY, FL, LA, and NC Occupational Injury and Illness Programs produced a SouthON fact sheet that was disseminated to all unfunded states in the southeastern region; 2) The first SouthON meeting was held on December 5, 2011, in Orlando, FL. The Sunshine ERC contributed approximately \$3000 to fund the venue, and travel; 3) A conference grant proposal was submitted by Dr. Terry Bunn to NIOSH in February, 2012, for funding of the 2-4th SouthON conferences. The application was scored but not funded. The application will be resubmitted for funding in August, 2012.

Advisory Committee The KOSHS/ FACE advisory board meeting was held on January 31, 2012, in Frankfort, KY. The focus of the advisory board meeting involved Transportation Industry Injury Prevention Stakeholders (TIIPS). TIIPS provided input on research, haz alerts, training, and the development of digital FACE stories for the transportation industry.

### Potential Outcomes

1. The KOSHS/FACE vehicle fire publication and press release was picked up by the Fleet Owner website and ADS logistics blog in June 2012.
2. Information on transportation publications are shared with the FMCSA and the US DOT. The FMCSA and US DOT are very interested in the results of our studies and we also are collaborating with the US DOT by providing them with newspaper clippings of all fatal truck fatalities in KY.
3. The KOSHS program collaborated with the Kentucky Motor Transport Association (KMTA) and developed a safety management system presentation geared to new trucking company owners. The KMTA hired a safety KMTA Safety/Development training and consultation specialist to collaborate with the FMCSA and expand services to KMTA members. The KY FACE program will collaborate with the new KMTA safety specialist and provide worker safety trainings on a regular basis. Twenty new transportation companies are started each week in Kentucky, all with 10 trucks or less. Pending approval by the Kentucky General Assembly, the safety management system training should begin in the summer of 2012.

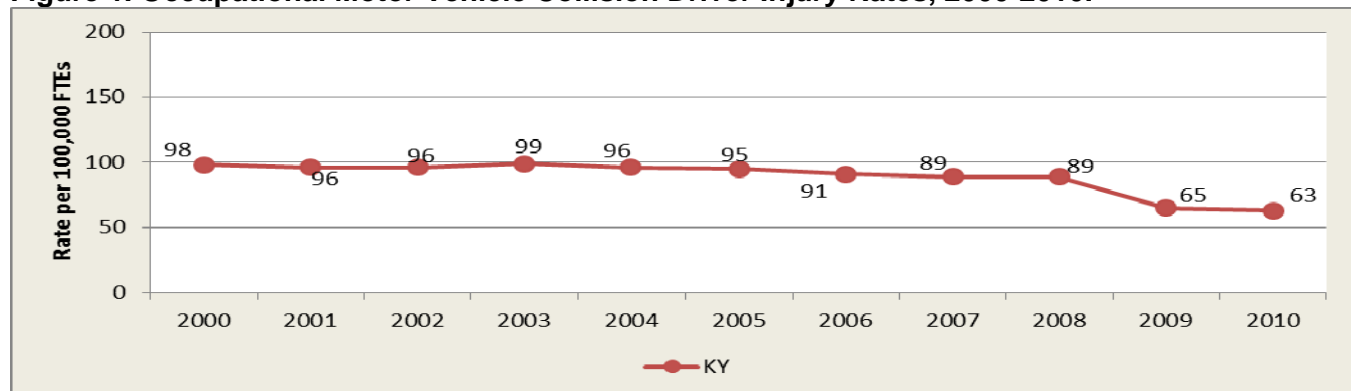
### E. Intermediate Outcomes

1. KOSHS and FACE reports and prevention materials were downloaded 32,417 times from July 1, 2011 to June 30, 2012.

### F. End Outcomes

Between 1994 and 2010, occupational fatalities significantly decreased in both number and rate. It is impossible to eliminate or take into account all the possible influences on the burden of fatal occupational injuries, but KY FACE evaluated the burden of transportation industry injuries since transportation-related injuries are a state target priority area. Kentucky occupational driver motor vehicle collision injury rates have significantly decreased since 2000 (Figure 1) ( $p=0.002$ ).

**Figure 1. Occupational Motor Vehicle Collision Driver Injury Rates, 2000-2010.**



Data Source: Kentucky Department of Workers' Claims

## **Annual Report- Occupational Safety and Health Surveillance (July 1, 2011- June 30, 2012)**

**State:** Kentucky

**Principal Investigator:** Terry Bunn

**Program Type:** Fatality Assessment and Control Evaluation (FACE) program

### **SIGNIFICANT OUTPUTS:**

#### **A. Presentations**

1. Surveillance of Kentucky Agricultural Machinery Injuries Using Multiple Data Sources, 2008-2010. Presented at the International Society for Agricultural Health, Burlington, VT. June 25, 2012.
2. Chemical Poisonings Among Kentucky Workers, 2000-2010. Presented at CSTE Meeting, Omaha, NE. June 5, 2012.
3. Kentucky Semi Truck Transportation Fatality Investigations: Contributing Factors. Presented at the NORA Symposium, Cincinnati, OH, July 13, 2011.
4. Identifying Workplace Hazards. Presented at the Associated General Contractors of Kentucky Safety Day conference, Lexington, KY, September 9, 2011.
5. Hindsight is 20/20. Presented at the Bluegrass Community and Technical College, Lawrenceburg, KY. September 22, 2011.
6. Kentucky Highlights. Presented at the Annual FACE meeting, Boston, MA. October 12, 2011.
7. Sleepiness and Fatigue among Semi Truck Drivers. Presented at the Annual FACE meeting. Boston, MA. October 12, 2011.

#### **B. Hazard alerts**

1. Workers Killed After Being Electrocuted, Volume 9, Issue 3, July 2011.
2. Workers Die from Heat Stroke, Volume 9, Issue 4, July 2011.
3. Workers Die from Carbon Monoxide Poisoning, Volume 10, Issue 1, January 2012.

#### **C. Publications**

##### Peer-reviewed

1. Bunn, TL, Slavova, S, Robertson, M. 2011. Crash and Burn? Vehicle, Collision and Driver Factors that Influence Motor Vehicle Collision Fires. *Accid Anal Prev* 47:140-145.
2. Bunn, TL, Slavova, S, Robertson, M. 2011. Motor Vehicle Injuries among Semi Truck Drivers and Sleeper Berth Passengers. *J Safety Res* (submitted).

##### Non-peer-reviewed

- a. Kentucky Commercial Trucking Accident Review, *Kentucky Trucker*, Spring 2011.
- b. Land Surveyor Struck and Killed by Passenger Vehicle, *FACE Value, Safety+Health Magazine*, Nov 2011.
- c. Mortality Patterns among Multiple Jobholders Employed in Kentucky. Published MPH capstone. University of Kentucky, College of Public Health, April 2012.

#### **D. Reports**

1. Kentucky Fatality Assessment and Control Evaluation Program- Annual Report, 2011.
2. Commercial Vehicle Fires, NIOSH e-news, May 2012.

#### **E. FACE Reports**

1. 11KY001- Semi-Flatbed Driver Forced Across Median; Struck by Another Semi Whose Driver Dies
2. 11KY031- Two Semis Collide - Fire Ensues; Both Drivers Perish
3. 11KY072- Owner/ Operator Hauling Asphalt Flux Dies After Driving into a Ravine and Striking Trees
4. 08KY065- Out-of-State Electrician electrocuted While Restoring Service at a Personal Residence
5. 10KY043- Steel Worker Falls from Highway Bridge and Dies
6. 10KY008- Semi Tractor-Trailer Driver Dies in Median Crossover Crash: 10 Others Die
7. 11KY006- Roadside Responder is Struck by a Box Truck and Dies

#### **8. Press Releases**

1. A press release regarding our 2012 vehicle fire crash study was picked up by Landline magazine and FACE personnel were interviewed for a radio spot on Landline that aired on April 9th, 2012, at 6pm on Sirius 106. The Landline reporter requested FACE personnel's input on Landline's recommendation to FMCSA to perform semi-truck crash testing.

#### **9. Partnerships**

Transportation industry

1. Kentucky FACE personnel are members of the Governor's Executive Committee on Highway Safety, the Highway Fatality Review subcommittee team, the Louisville Metro Highway Incident Management team, and the KY Traffic Records Advisory Committee.
2. The KY FACE program collaborated with Ms. Angela Criswell, Alcohol Prevention Enhancement Site Coordinator, Bluegrass Prevention Center, and former director of KY MADD, on the use of FACE reports where drugs/alcohol were a factor in motor vehicle collisions for dissemination in the KY Legislative General Session.
3. Mr. David Biderman, General Counsel and Safety Director from the National Solid Waste Management Association requested all of our solid waste FACE reports and publications in the public and private industries for safety training purposes.

#### 10. Potential Outcomes:

1. The Kentucky Injury Prevention and Research Center was designated as an International and National Affiliate Support Center for the World Health Organization's Safe Communities program and Safe Communities America on May 4, 2012. As an affiliate support center, KIPRC will provide guidance to communities who apply for Safe Community designation incorporating injury prevention strategies in both the general and working populations.
2. A Hispanic farm worker was found dead on a Kentucky tobacco farm on September 4, 2011, and Green Tobacco Poisoning was suspected as a causal factor for the fatality. As a result, FACE project staff and bi-lingual volunteers addressed participants at the Garrard County, Kentucky, 30th Annual World Tobacco Contest held September 8, 2011. Approximately 500 attendees, of which an estimated 150 were Hispanic, were addressed and received English and Spanish language flyers describing the symptoms and prevention of Green Tobacco Poisoning.

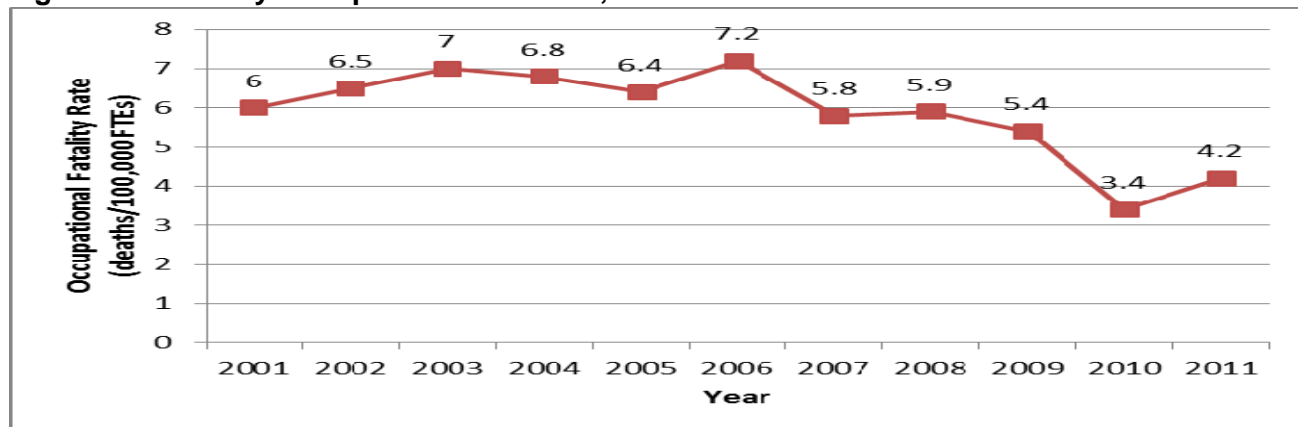
#### 11. Intermediate Outcomes:

1. The heat stroke hazard alert was disseminated to FACE stakeholders in June 2012. Two vending companies said they would distribute the alert to all employees. A private industry said that they would be using the heat stroke haz alert as an outline for their safety meetings on heat related issues. Another solid waste hauler said "the alert serves as a great way to remind the operations supervisors and get the issue back on the 'front burner'".
2. Increased recognition of the KY FACE program as experts in the prevention of truck driver injuries led to an interview of the Kentucky FACE program by the Director of Operations, Business Group Automotive, Philips Lighting, on semi-truck driver safety and potential engineering designs and trucking industry safety needs.

#### 12. End Outcomes:

Between 2001 and 2011, occupational fatality rates significantly decreased (Figure 2) ( $p=0.01$ ). It is impossible to eliminate or take into account all the possible influences on the burden of fatal occupational injuries, so KY FACE evaluated the burden of transportation and warehousing industry fatal injuries, Kentucky's state target priority area for surveillance and interventions. Kentucky transportation and warehousing industry fatality rates have significantly decreased since 2006 (Figure 3) ( $p=0.04$ ).

**Figure 2. Kentucky Occupational Fatalities, 2001-2011.**



**Figure 3. Occupational Fatality Rates for Transportation, Warehousing and Utility Industry Workers, 2006-2011.**

